

247



**Groundwater
& Environmental Services, Inc.**

429B Hayden Station Road • Windsor, Connecticut 06095 • (860) 688-9023 • FAX (860) 688-9278

November 13, 2001

Mr. Richard Spiese
Vermont Department of Environmental Conservation
103 South Main Street
Waterbury, MA 05676

Re: *Site Progress Report*
Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont
SMS No. 880248

Dear Mr. Spiese:

Enclosed is the *Site Progress Report* for the above-referenced site. Please contact Mr. David Baker of ExxonMobil Oil Corporation at (508) 389-1881 or either of the undersigned if you have any questions regarding the status of this site.

Sincerely,
GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

A handwritten signature in black ink, appearing to read 'Melissa D. Davis'.

Melissa D. Davis
Associate Environmental Scientist

A handwritten signature in black ink, appearing to read 'Glen D. Stefaniak'.

Glen D. Stefaniak
Project Geologist
Project Manager

MDD/GDS/jao
Reports\Progress Rpt 11-01

Enclosure

cc: Mr. David J. Baker - ExxonMobil Oil Corporation



SITE PROGRESS REPORT

**Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont
SMS No. 880248**

November 13, 2001

Prepared for:

Mr. David J. Baker
EXXONMOBIL OIL CORPORATION
1800 West Park Drive
Suite 450
Westborough, MA 01581

Prepared by:

GROUNDWATER & ENVIRONMENTAL SERVICES, INC.
Kennedy Business Park
429B Hayden Station Road
Windsor, CT 06095

Prepared/Written by:

A handwritten signature in black ink, appearing to read "Melissa Davis".

Melissa D. Davis
Associate Environmental Scientist

Reviewed/Approved by:

A handwritten signature in black ink, appearing to read "Glen D. Stefaniak".

Glen D. Stefaniak
Project Geologist
Project Manager

SITE PROGRESS REPORT
Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont
SMS No. 880248

Groundwater Monitoring Date:	October 10, 2001
Reporting Period:	May 2001 through October 2001
ExxonMobil Contact:	Regulatory Contact:
Mr. David J. Baker	Mr. Richard Spiese
Territory Manager	Sites Management Section
ExxonMobil Oil Corporation	Vermont Department of Environmental Conservation
1800 West Park Drive	103 South Main Street
Westborough, MA 01581	Waterbury, VT 05676
Groundwater Classification:	Class III Groundwater
Permits:	NA
Site Phase:	Groundwater Monitoring
Current Schedule:	Semi-annual groundwater monitoring of up to seven (7) groundwater monitoring wells.

Site History

The subject property, Former Mobil Service Station No. 01-GEP, is located at 1316 North Avenue in Burlington, Vermont (the Site). A Site Locus Map is provided as **Figure 1**. The Site currently operates as a retail Texaco service station facility and contains a single-story building. Gasoline is stored in three (3) underground storage tanks (USTs) and dispensed at one (1) pump island containing two (2) pump dispensers. The topography at the Site is generally flat, with the terrain sloping essentially downward to the west.

A gasoline release of an unknown volume impacted the Site and North Avenue immediately down-gradient of the Site. Petroleum hydrocarbons were first discovered at the Site on October 8, 1988 during nearby construction activities. During an initial Site investigation conducted in 1988, non-aqueous phase liquid (NAPL) was detected in several on-Site groundwater monitoring wells. A groundwater pump and treat and soil vapor extraction (SVE) system was installed and operated on-Site from April 6, 1990 until it was deactivated on November 10, 1995. Oxygen-releasing compound (ORC) socks were deployed in four (4) on-Site groundwater-monitoring wells on October 21, 1996. The socks have since been removed due to limited effectiveness.

SITE PROGRESS REPORT
Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont
SMS No. 880248

Dissolved-phase concentrations of benzene, naphthalene and trimethylbenzenes in groundwater remain present at levels above the Vermont Department of Environmental Conservation (VTDEC) Primary Ground Water Quality Enforcement Standards (PGWQES). Groundwater gauging and sampling are continued on a semi-annual basis at the Site.

Potential Sensitive Receptors

Potential receptors include surrounding residential properties and businesses. The down-gradient edge of the Site plume is in close proximity to several residences on the west side of North Avenue. There are no private or public water supply wells in the area.

Lithology

Based on observations made during drilling operations, unconsolidated materials at the Site consist of silt with fine to coarse grained sand and gravel to approximately 6 feet below grade (fbg) underlain by fine to medium sand with silt and gravel from approximately 6-12 fbg, with a more dense fine grained silt, sand and clay to approximately 23 fbg.

ACTIVITIES PERFORMED DURING REPORTING PERIOD

October 10, 2001 - Groundwater gauging and sampling of monitoring wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8.

GROUNDWATER MONITORING

Date of most recent monitoring event:	October 10, 2001
Wells gauged:	MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8.
NAPL	None detected.
Wells sampled:	MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8.

SITE PROGRESS REPORT
Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont
SMS No. 880248

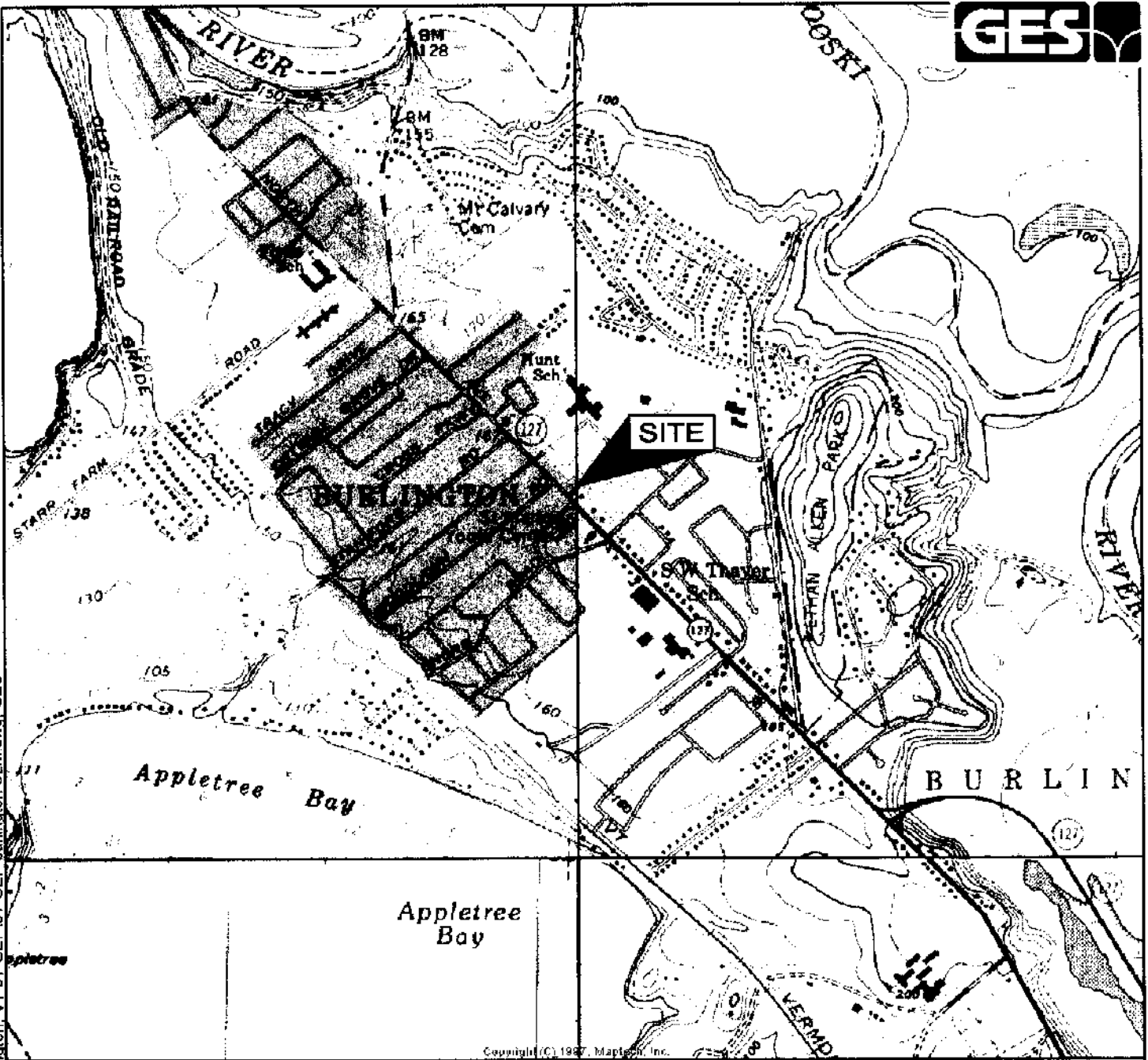
GROUNDWATER MONITORING (Continued)

Laboratory method:	Environmental Protection Agency (EPA) Method 8021B benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl- tertiary-butyl-ether (MTBE), trimethylbenzenes, and naphthalene.
Groundwater flow direction:	West / Southwest
Groundwater gradient:	0.01 feet per foot
Groundwater Analytical Results:	See Figure 2, Table 1, and Appendix A

ATTACHMENTS

Figure 1	Site Locus Map
Figure 2	Groundwater Gradient & BTEX/MTBE Concentrations Map (October 10, 2001)
Table 1	Historical Groundwater Monitoring Data
Appendix A	Laboratory Analytical Report

FIGURES



Copyright (C) 1987, Maptech, Inc.

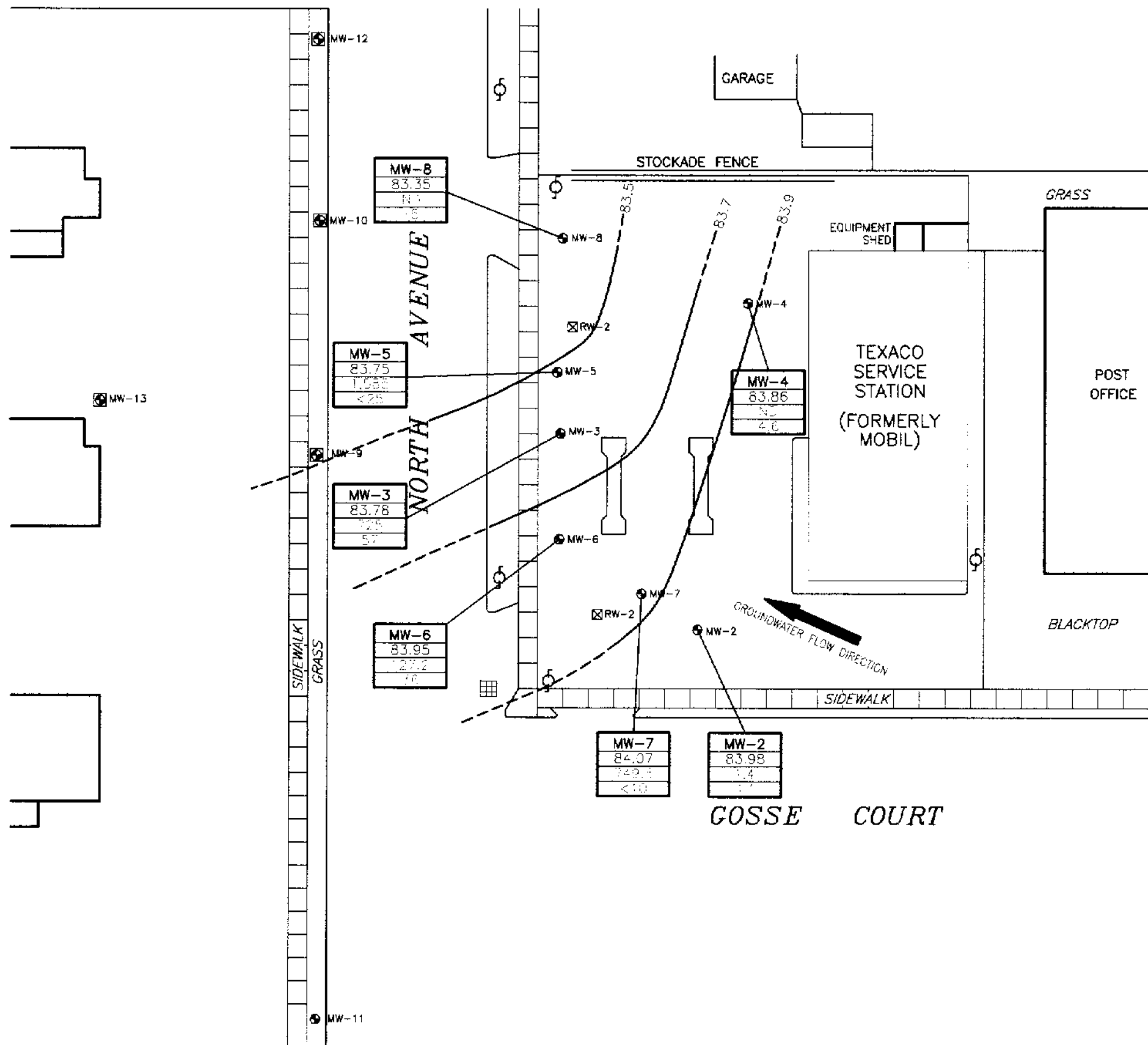
SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1987
COLCHESTER POINT, VT.
CONTOUR INTERVAL = 20'



QUADRANGLE LOCATION

DRAFTED BY: E.V. (WALL)	SITE LOCUS MAP		
CHECKED BY: M.D.	EXXONMOBIL OIL CORPORATION FORMER HERITAGE MOBIL SERVICE STATION #01-GEP 1316 NORTH AVENUE BURLINGTON, VERMONT		
REVIEWED BY: G.D.S.	Groundwater & Environmental Services, Inc. 429B HAYDEN STATION ROAD, WINDSOR, CT 06095		
	SCALE IN FEET 	DATE 11-1-01	FIGURE 1
	0 2000		

M:\Graphics\Graphics-Windsor\MOBIL\Burlington, VT 01-GEP\01-GEP Burlington SLIM.dwg, GES



LEGEND

- MONITORING WELL
- DESTROYED MONITORING WELL
- RECOVERY WELL
- UTILITY POLE
- CATCH BASIN
- DISPENSER ISLAND
- WELL IDENTIFICATION**
- GROUNDWATER ELEVATION (feet)**
- TOTAL BTEX CONCENTRATION (ug/L)**
- MTBE CONCENTRATION (ug/L)**
- ug/L** MICROGRAMS PER LITER
- ND** NOT DETECTED
- BTEX** BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
- MTBE** METHYL tert-BUTYL ETHER
- <#** WHERE AN ANALYTE IS NOT DETECTED, A METHOD DETECTION LIMIT IS GIVEN
- GROUNDWATER CONTOUR (feet)**
- DASHED WHERE INFERRED**

DRAFTED BY: E.V. (WALL)	GROUNDWATER GRADIENT & BTEX/MTBE CONCENTRATIONS MAP OCTOBER 10, 2001		
CHECKED BY: M.D.	EXXONMOBIL OIL CORPORATION FORMER HERITAGE MOBIL SERVICE STATION #01-GEP 1318 NORTH AVENUE BURLINGTON, VERMONT		
REVIEWED BY: G.D.S.	Groundwater & Environmental Services, Inc. 429B HAYDEN STATION ROAD, WINDSOR, CT 06095		
NORTH 	SCALE IN FEET 	DATE 11-1-01	FIGURE 2

TABLE

TABLE 1
HISTORICAL GROUNDWATER MONITORING DATA

Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont

[Results reported in micrograms per liter (µg/L)]

Well Elevation (feet)	Date	Depth To Water (feet)	Depth To Product (feet)	Groundwater Elevation (feet)	Benzene	Toluene	Ethyl- Benzene	Xylenes	BTEX	MTBE	Naphthalene	1,2,4- Trimethyl- benzene	1,3,5- Trimethyl- benzene
MW-2 99.31	Jun-6-97	14.46	NA	84.85	22	25	120	120	287	130	NS	NS	NS
	Jan-13-98	14.28	NA	85.03	12	1.0	47	8.0	68	1,400	NS	NS	NS
	Apr-26-00	14.17	NA	85.14	<1.0	<1.0	1.4	<3.0	1.4	22	<5.0	<1.0	<1.0
	Oct-23-00	15.30	NA	84.01	1.3	3.3	13	31	48.6	49	5.5	11	10
	Apr-25-01	13.75	NA	85.56	2	<1.0	33	7.8	42.8	14	7.7	35	<1.0
	Oct-10-01	15.33	NA	83.98	1.4	<1.0	<1.0	<3.0	1.4	17	<5.0	<1.0	<1.0
MW-3 98.99	Jun-6-97	NG	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jan-13-98	13.85	NA	85.14	<20	17	38	720	775	36	NS	NS	NS
	Apr-26-00	13.31	NA	85.68	<20	13	27	770	810	72	95	190	420
	Oct-23-00	15.03	NA	83.96	40	96	82	1,000	1,218	90	62	430	310
	Apr-25-01	12.58	NA	86.41	9.1	68	59	1,100	1,236.1	<20	190	530	390
	Oct-10-01	15.21	NA	83.78	40	51	64	570	725	57	71	320	98
MW-4 99.35	Jun-6-97	NG	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jan-13-98	12.91	NA	86.44	<1.0	<1.0	<1.0	<3.0	ND	<1.0	NS	NS	NS
	Apr-26-00	12.40	NA	86.95	<1.0	<1.0	<1.0	<3.0	ND	<1.0	<5.0	2.4	<1.0
	Oct-23-00	15.18	NA	84.17	<1.0	<1.0	<1.0	<3.0	ND	<1.0	<5.0	<1.0	<1.0
	Apr-25-01	11.96	NA	87.39	<1.0	<1.0	<1.0	<3.0	ND	23	<5.0	<1.0	<1.0
	Oct-10-01	15.49	NA	83.86	<1.0	<1.0	<1.0	<3.0	ND	4.6	<5.0	<1.0	<1.0
MW-5 98.92	Jun-6-97	14.16	NA	84.76	60	420	420	3,800	4,700	120	NS	NS	NS
	Jan-13-98	14.76	NA	84.16	<50	220	300	2,900	3,420	90	NS	NS	NS
	Apr-26-00	14.22	NA	84.70	24	85	92	770	971	<50	86	820	270
	Oct-23-00	15.78	NA	83.14	<50	120	160	1,400	1,680	<20	130	1,100	370
	Apr-25-01	12.60	NA	86.32	9.3	140	160	1,800	2,109.3	<50	130	1,400	440
	Oct-10-01	15.17	NA	83.75	42	63	180	1,300	1,585	<25	140	1,100	240
Vermont Primary Groundwater Quality Enforcement Standards:					5.0	1,000	700	10,000	NE	40	20	5.0	4.0

TABLE 1
HISTORICAL GROUNDWATER MONITORING DATA

Former Mobil Service Station No. 01-GEP
1316 North Avenue
Burlington, Vermont

[Results reported in micrograms per liter (µg/L)]

Well Elevation (feet)	Date	Depth To Water (feet)	Depth To Product (feet)	Groundwater Elevation (feet)	Benzene	Toluene	Ethyl- Benzene	Xylenes	BTEX	MTBE	Naphthalene	1,2,4- Trimethyl- benzene	1,3,5- Trimethyl- benzene
MW-6 98.94	Jun-6-97	14.18	NA	84.76	210	4.0	100	180	494	310	NS	NS	NS
	Jan-13-98	14.04	NA	84.90	55	11	52	68	186	100	NS	NS	NS
	Apr-26-00	14.80	NA	84.14	5.8	<1.0	4.4	13	23.2	24	<5.0	14	1.6
	Oct-25-00	15.45	NA	83.49	29	2.7	26	26	83.7	26	8.6	27	17
	Apr-25-01	13.12	NA	85.82	3.9	6.6	5.3	19	34.8	27	22	38	8
	Oct-10-01	14.99	NA	83.95	18	1.2	23	85	127.2	36	60	170	26
MW-7 99.11	Jun-6-97	14.54	NA	84.57	73	280	190	680	1,223	55	NS	NS	NS
	Jan-13-98	15.03	NA	84.08	3.0	<1.0	11	14	28	7.0	NS	NS	NS
	Apr-26-00	15.27	NA	83.84	2.4	<1.0	12	<3.0	14.4	9.3	<5.0	<1.0	<1.0
	Oct-25-00	15.83	NA	83.28	7.6	2.7	180	70	260.3	8.9	6.5	58	11
	Apr-25-01	13.35	NA	85.76	3.2	8	75	38	124.2	10	5	57	<1.0
	Oct-10-01	15.04	NA	84.07	10	9.5	380	350	749.5	<10	37	270	8.2
MW-8 98.88	Jun-6-97	NG	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jan-13-98	13.60	NA	85.28	<1.0	<1.0	<1.0	<3.0	ND	24	NS	NS	NS
	Apr-26-00	13.17	NA	85.71	<1.0	<1.0	<1.0	<3.0	ND	4.1	<5.0	<1.0	<1.0
	Oct-25-00	15.21	NA	83.67	<1.0	<1.0	<1.0	<3.0	ND	2.5	<5.0	<1.0	<1.0
	Oct-10-01	15.53	NA	83.35	<1.0	<1.0	<1.0	<3.0	ND	15	<5.0	1.0	<1.0
Vermont Primary Groundwater Quality Enforcement Standards:					5.0	1,000	700	10,000	NE	40	20	5.0	4.0

Notes:

NA = not applicable.

NS = not sampled.

NG = not gauged.

< = less than or below detection limit

MTBE = methyl tert-butyl ether

ND = not detected.

NE = no established standard for this parameter.

APPENDIX A

Laboratory Analytical Report (Groundwater)



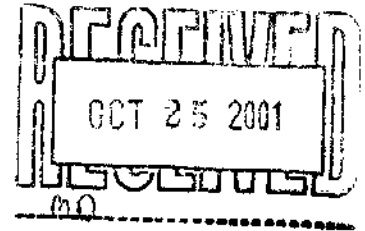
ANALYTICAL RESULTS

Prepared for:

ExxonMobil
C/O GES/Dave Sherman
429 B Hayden Station Road
Windsor CT 06095

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425



SAMPLE GROUP

The sample group for this submittal is 782121. Samples arrived at the laboratory on Friday, October 12, 2001. The PO# for this group is 4500190492-0500 and the release number is 00600.

Client Description

MW-2 Grab Groundwater Sample
MW-3 Grab Groundwater Sample
MW-4 Grab Groundwater Sample
MW-5 Grab Groundwater Sample
MW-6 Grab Groundwater Sample
MW-7 Grab Groundwater Sample
MW-8 Grab Groundwater Sample
Trip Blank Water Sample

Lancaster Labs Number

3706359
3706360
3706361
3706362
3706363
3706364
3706365
3706366

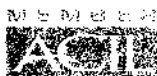
METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

Groundwater & Env. Services

Attn: Glen Stefaniak



Lancaster Laboratories Inc.
2425 New Holland Pike
PO Box 1422
Lancaster, PA 17605-2425
Tel: 717-397-1100 Fax: 717-397-1101



Lancaster Laboratories

Where quality is a science.

Questions? Contact your Client Services Representative
Rachel L. Kreamer at (717) 656-2300.

Respectfully Submitted,

Matthew E. Barton
Lab Chemist/Coordinator



Lancaster Laboratories
Where quality is a science.

Page 1 of 1

Lancaster Laboratories Sample No. WW 3706359

Collected: 10/10/2001 08:50 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05
Reported: 10/23/2001 at 01:00
Discard: 10/31/2001

ExxonMobil
C/O GES/Dave Sherman
429 B Hayden Station Road
Windsor CT 06095

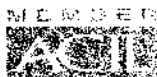
MW-2 Grab Groundwater Sample
LOC# 01-GFP WBS# 08
MORTI.: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	1.4	1.0	ug/l	1
00777	Toluene	108-08-3	< 1.0	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	< 1.0	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	< 3.0	3.0	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	17.	1.0	ug/l	1
00781	Naphthalene	91-20-3	< 5.0	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63-6	< 1.0	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	< 1.0	1.0	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021B	1	10/17/2001 05:51	Linda C. Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/17/2001 05:51	Linda C. Pape	n.a.



MEMBER
ASAP
Lancaster Laboratories
1316 North Ave
Burlington, VT 05401
Phone: (802) 244-1111
Fax: (802) 244-1112
E-mail: info@lancasterlabs.com



Lancaster Laboratories Sample No. WW 3706360

Collected: 10/10/2001 10:20 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-3 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MORIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	40.	5.0	ug/l	5
00777	Toluene	108-88-3	51.	5.0	ug/l	5
00778	Ethylbenzene	100-41-4	64.	5.0	ug/l	5
00779	Total Xylenes	1330-20-7	570.	15.	ug/l	5
00780	Methyl tert-Butyl Ether	1634-04-4	57.	5.0	ug/l	5
00781	Naphthalene	91-20-3	71.	25.	ug/l	5
02292	1,2,4-Trimethylbenzene	95-63-6	320.	5.0	ug/l	5
02293	1,3,5-Trimethylbenzene	108-67-8	98.	5.0	ug/l	5

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021B	1	10/17/2001 14:42	Melissa Mann	5
01146	GC VOA Water Prep	SW-846 5030B	1	10/17/2001 14:42	Melissa Mann	n.a.



Lancaster Laboratories
Where quality is a science.

Page 1 of 1

Lancaster Laboratories Sample No. WW 3706361

Collected: 10/10/2001 11:45 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-4 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MOBIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	< 1.0	1.0	ug/l	1
00777	Toluene	108-88-3	< 1.0	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	< 1.0	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	< 3.0	3.0	ug/l	1
00780	Methyl tert Butyl Ether	1634-04-4	4.6	1.0	ug/l	1
00781	Naphthalene	91-20-3	< 5.0	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63-6	< 1.0	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	< 1.0	1.0	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 B021B	1	10/20/2001 18:19	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 18:19	Melissa-Ann S. McAlpine	n.a.



ACI LABORATORIES INC.
2001 Elmwood Drive
PO Box 1115
Burlington, VT 05401
Phone: 802-244-6666

10/23/2001 11:01



Lancaster Laboratories Sample No. WW 3706362

Collected: 10/10/2001 10:45 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-5 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MORTIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	42.	5.0	ug/l	5
00777	Toluene	108-88-3	63.	5.0	ug/l	5
00778	Ethylbenzene	100-41-4	180.	5.0	ug/l	5
00779	Total Xylenes	1330-20-7	1,300.	15.	ug/l	5
00780	Methyl tert-Butyl Ether	1634-04-4	< 25.	25.	ug/l	5
00781	Naphthalene	91-20-3	140.	25.	ug/l	5
02292	1,2,4-Trimethylbenzene	95-63-6	1,100.	5.0	ug/l	5
02293	1,3,5-Trimethylbenzene	108-67-8	240.	5.0	ug/l	5

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

Methyl t-butyl ether

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW 846 8021B	1	10/20/2001 18:54	Melissa-Ann S. McAlpine	5
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 18:54	Melissa-Ann S. McAlpine	n.a.



MEMBER
Lancaster Laboratories
1316 North Ave
Burlington, VT 05401
802.254.1316



Lancaster Laboratories Sample No. WW 3706363

Collected: 10/10/2001 09:45 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-6 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MOBIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	18.	1.0	ug/l	1
00777	Toluene	108-88 3	1.2	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	23.	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	85.	3.0	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	36.	1.0	ug/l	1
00781	Naphthalene	91-20-3	60.	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63 6	170.	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	26.	1.0	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021B	1	10/20/2001 19:29	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 19:29	Melissa-Ann S. McAlpine	n.a.



Lancaster Laboratories Sample No. WW 3706364

Collected: 10/10/2001 09:15 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GFS/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-7 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MOBIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	10.	1.0	ug/l	1
00777	Toluene	108-88-3	9.5	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	380.	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	350.	3.0	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	< 10.	10.	ug/l	1
00781	Naphthalene	91-20-3	37.	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63-6	270.	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	8.2	1.0	ug/l	1

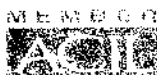
Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

Methyl t-butyl ether

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021B	1	10/20/2001 20:04	Melissa Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 20:04	Melissa-Ann S. McAlpine	n.a.



Lancaster Laboratories, Inc.
2000 West Main Street
Burlington, VT 05401
Tel: 802/239-1234
Fax: 802/239-1235



Lancaster Laboratories Sample No. WW 3706365

Collected: 10/10/2001 11:10 by EL

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

MW-8 Grab Groundwater Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

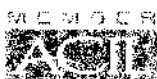
MOBIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	< 1.0	1.0	ug/l	1
00777	Toluene	108-88-3	< 1.0	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	< 1.0	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	< 3.0	3.0	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	15.	1.0	ug/l	1
00781	Naphthalene	91-20-3	< 5.0	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63-6	1.0	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	< 1.0	1.0	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021B	1	10/20/2001 20:39	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 20:39	Melissa-Ann S. McAlpine	n.a.



Lancaster Laboratories Inc.
 100 New Bedford Pike
 01804-1105
 Lancaster, MA 01804-1105
 508-548-1100



Lancaster Laboratories Sample No. WW 3706366

Collected: n.a.

Account Number: 10799

Submitted: 10/12/2001 10:05

ExxonMobil

Reported: 10/23/2001 at 01:00

C/O GES/Dave Sherman

Discard: 10/31/2001

429 B Hayden Station Road

Trip Blank Water Sample

Windsor CT 06095

LOC# 01-GEP WBS# 08

MOBIL: 1316 North Ave; Burlington, VT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
02290	MI UST by GC waters					
00776	Benzene	71-43-2	< 1.0	1.0	ug/l	1
00777	Toluene	108-88-3	< 1.0	1.0	ug/l	1
00778	Ethylbenzene	100-41-4	< 1.0	1.0	ug/l	1
00779	Total Xylenes	1330-20-7	< 3.0	3.0	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	< 1.0	1.0	ug/l	1
00781	Naphthalene	91-20-3	< 5.0	5.0	ug/l	1
02292	1,2,4-Trimethylbenzene	95-63-6	< 1.0	1.0	ug/l	1
02293	1,3,5-Trimethylbenzene	108-67-8	< 1.0	1.0	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02290	MI UST by GC waters	SW-846 8021R	1	10/20/2001 17:09	Melissa-Ann S. McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/20/2001 17:09	Melissa-Ann S. McAlpine	n.a.



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10000 W. 10th Ave.
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Quality Control Summary

Page 1 of 2

Client Name: ExxonMobil
 Reported: 10/23/01 at 01:00 AM

Group Number: 782121

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 01289A51	Sample number(s): 3706359-3706360							
Benzene	< 1.	1.	ug/l	104	110	80-118	5	30
Toluene	< 1.	1.	ug/l	104	111	82-119	6	30
Ethylbenzene	< 1.	1.	ug/l	106	113	81-119	6	30
Total Xylenes	< 3.	3.	ug/l	108	114	82-120	5	30
Methyl tert-Butyl Ether	< 1.	1.	ug/l	103	104	79-127	1	30
Naphthalene	< 5.	5.	ug/l	108	113	68-121	5	30
1,2,4-Trimethylbenzene	< 1.	1.	ug/l	109	113	70-130	4	30
1,3,5-Trimethylbenzene	< 1.	1.	ug/l	108	114	70-130	5	30
Batch number: 01293A55	Sample number(s): 3706361-3706366							
Benzene	< 1.	1.	ug/l	106	108	80-118	2	30
Toluene	< 1.	1.	ug/l	103	105	82-119	2	30
Ethylbenzene	< 1.	1.	ug/l	100	102	81-119	2	30
Total Xylenes	< 3.	3.	ug/l	101	102	82-120	1	30
Methyl tert-Butyl Ether	< 1.	1.	ug/l	109	109	79-127	1	30
Naphthalene	< 5.	5.	ug/l	102	103	68-121	1	30
1,2,4-Trimethylbenzene	< 1.	1.	ug/l	106	107	70-130	1	30
1,3,5-Trimethylbenzene	< 1.	1.	ug/l	103	105	70-130	2	30

Surrogate Quality Control

Analysis Name: MI UST by GC waters
 Batch number: 01289A51
 Trifluorotoluene-P

3706359 96
 3706360 101
 Blank 92
 LCS 96
 LCSD 97

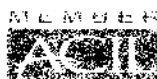
Limits: 72-134

Analysis Name: MI UST by GC waters
 Batch number: 01293A55
 Trifluorotoluene-P

3706361 109
 3706362 121
 3706363 115
 3706364 131
 3706365 110
 3706366 109
 Blank 108
 LCS 108

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc.
 2425 Main Industrial Road
 PO Box 10420
 Columbia, PA 17022-0420
 Tel: 717-677-7700 Fax: 717-677-7701

10/23/01 10:50 AM



Lancaster Laboratories

Where quality is a science.

Quality Control Summary

Page 2 of 2

Client Name: ExxonMobil
Reported: 10/23/01 at 01:00 AM

Group Number: 782121

Surrogate Quality Control

LCSD 110

Limits: 72-134

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc.
2015 Lancaster Road
P.O. Box 1000
Lancaster, PA 17601
Tel: (717) 299-1111 Fax: (717) 299-1112

10/23/01 11:00 AM



P. 1 of 1

For Lancaster Laboratories use only
Acct. #: 10799 Sample #: 3706359-6p

SCR#: 1157200

Please print.				Analyses Requested		List total number of containers in the box under each analysis.		Preservation Codes		Preservative Codes								
Mobil Consultant: <u>GROUNDWATER & ENVIRONMENTAL SERVICES</u>				Matrix														
Consultant Project Manager: <u>GLEN STEFANNIK</u>																		
Consultant Phone #: <u>860-688-9023</u> Fax #: <u>860-688-9278</u>																		
Location Code #: <u>01-GER</u> WBS #: <u>56</u>																		
Site Address: <u>1316 NORTH AVE, BURLINGTON</u> State: <u>VT</u>																		
Sampler: <u>ERIK LICHTENBER</u>																		
Mobil Engineer: <u>DAVID BAKER</u>																		
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	BIEX 602	BTX 8021	TPH API	TPH 418.1	BTX 8021	STARS GAS	8270 BNA	TPH MA VPH	MA EPH	Remarks
MW-2	10-10-01	8:50	✓			6W												
MW-3		10:20																
MW-4		11:45																
MW-5		10:45																
MW-6		9:45																
MW-7		9:15																
MW-8		11:10																
Trip blanks	9-19-01	—																
Temp blank																		

Turnaround Time Requested (TAT) (please circle):				Relinquished by: <u>Sherry Man</u>				Date: <u>9/20/01</u>	Time: <u>0505</u>	Received by: <u>E. Little</u>				Date: <u>10-10-01</u>	Time: <u>5:45</u>
MOBIL STD. TAT 72 hour 48 hour 24 hour other _____ day Do not FAX				Relinquished by: <u>E. Little</u>				Date: <u>10-10-01</u>	Time: <u>18:12</u>	Received by: <u>J. Osowski</u>				Date: <u>10/11/01</u>	Time: <u>3:40pm</u>
Data Package Options (please circle if requested)				Relinquished by: <u>J. Osowski</u>				Date: <u>10/11/01</u>	Time: <u>3:40pm</u>	Received by: <u>J. Osowski</u>				Date: <u>10/11/01</u>	Time: <u>3:40pm</u>
QC Summary GLP Type I (Tier I) Other Type II (Tier II) Disk Type III (NJ Red. Del.) Type IV (CLP) Type VI (Raw Data)				SDG Complete? Yes No Site-specific QC required? Yes <u>NO</u> If yes, indicate QC sample and submit triplicate volume. Internal Chain of Custody required? Yes <u>NO</u>				Relinquished by Commercial Carrier:				Temperature Upon Receipt <u>4.5</u> °C			
				UPS FedEx Other _____											